4.2.D. 0601020705 (Poplar Creek).

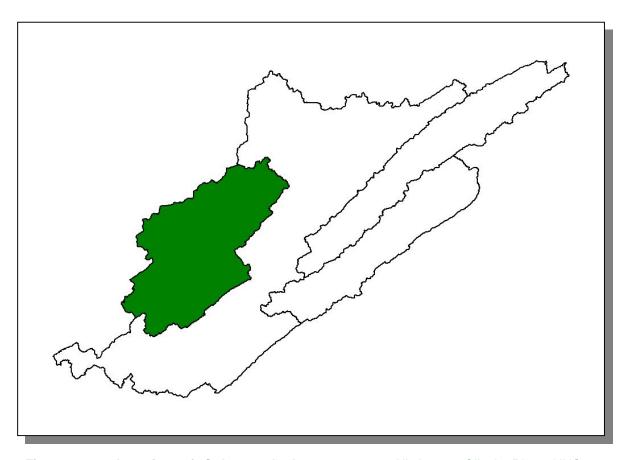


Figure 4-41. Location of Subwatershed 0601020705. All Lower Clinch River HUC-10 subwatershed boundaries are shown for reference.

4.2.D.i. General Description.

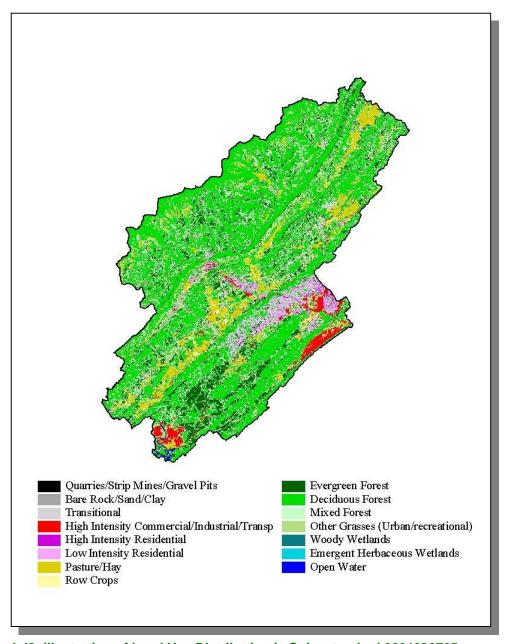


Figure 4-42. Illustration of Land Use Distribution in Subwatershed 0601020705.

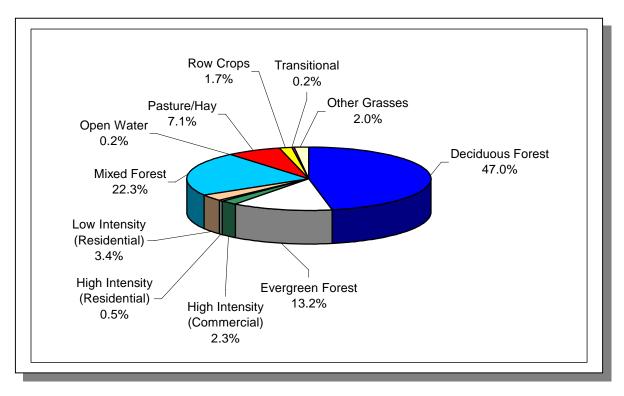


Figure 4-43. Land Use Distribution in Subwatershed 0601020705. More information is provided in Appendix IV.

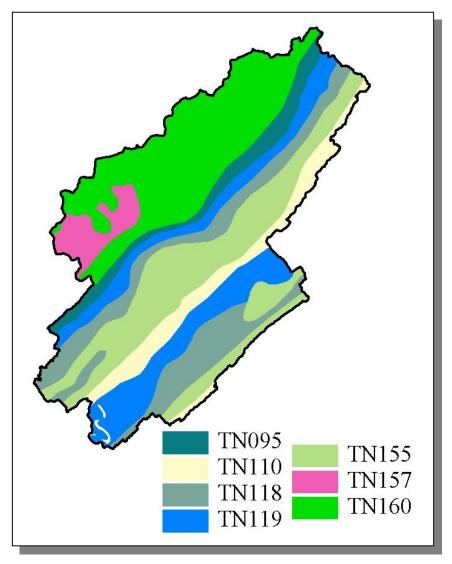


Figure 4-44. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 0601020705.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hr)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN095	0.00	В	2.35	5.12	Loam	0.31
TN110	0.00	В	2.22	4.96	Loam	0.31
TN118	0.00	С	6.52	5.12	Loam	0.29
TN119	2.00	С	1.08	5.15	Loam	0.33
TN155	0.00	С	1.71	5.31	Loam	0.32
TN157	0.00	В	2.38	4.62	Loam	0.28
TN160	0.00	В	2.69	5.36	Loam	0.25

Table 4-30. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 0601020705. More information is provided in Appendix IV.

	COUNTY POPULATION							
County	1990	1997	2000	Portion of Watershed (%)	1990	1997	2000	% Change (1990-1997)
								(
Anderson	68,250	71,498	71,330	22.47	15,334	16,063	16,026	4.5
Morgan	17,300	18,521	19,757	2.28	394	422	450	14.2
Roane	47,227	49,885	51,910	11.97	5,653	5,972	6,214	9.9
Totals	132,777	139,904	142,997		21,381	22,457	22,690	6.1

Table 4-31. Population Estimates in Subwatershed 0601020705

				NUMBER OF HO	DUSING UNITS	
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other
Oak Ridge	Roane	27,310	12,694	12,461	212	21
Oliver Springs	Roane	3,275	1,306	1,165	141	0
Totals		30,585	14,000	13,626	353	21

Table 4-32. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 0601020705.

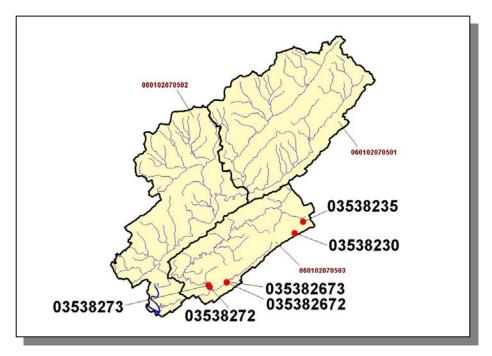


Figure 4-45. Location of Historical Streamflow Data Collection Sites in Subwatershed 060102070501, 0604000402, 060102070502 and 060102070503 boundaries are shown for reference. More information is provided in Appendix IV.

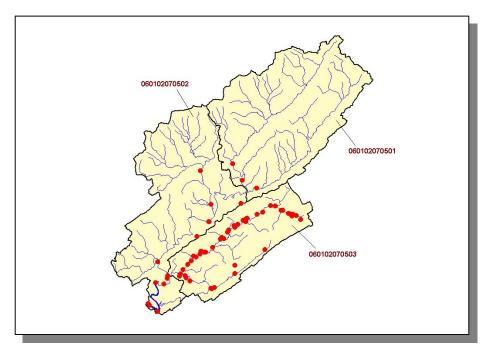


Figure 4-46. Location of STORET Monitoring Sites in Subwatershed 0601020705. Subwatershed 060102070501, 0604000402, 060102070502 and 060102070503 boundaries are shown for reference. More information, including site names and locations, is provided in Appendix IV.

4.2.D.ii. Point Source Contributions.

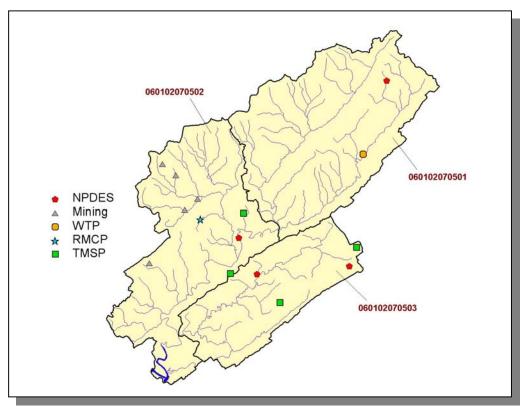


Figure 4-47. Location of Active Point Source Facilities in Subwatershed 0601020705. Subwatershed 060102070501, 060102070502, and 060102070503 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

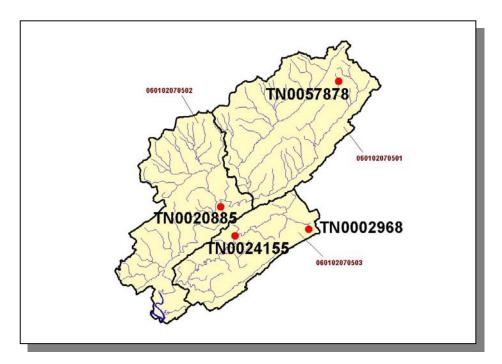


Figure 4-48. Location of NPDES Facilities in Subwatershed 0601020705. Subwatershed 060102070501, 060102070502, and 060102070503 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

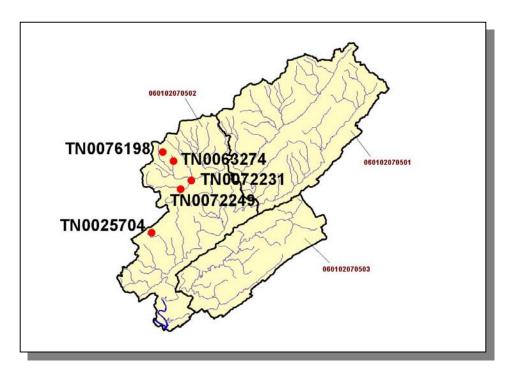


Figure 4-49. Location of Active Mining Facilities in Subwatershed 0601020705. Subwatershed 060102070501, 060102070502, and 060102070503 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

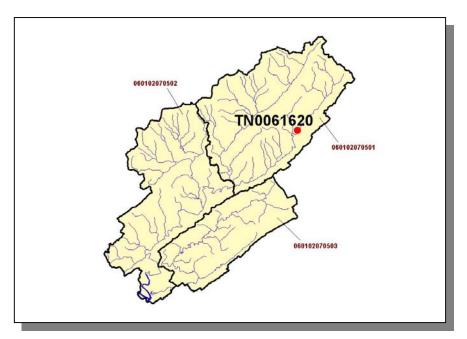


Figure 4-50. Location of Water Treatment Plants in Subwatershed 0601020705. Subwatershed 060102070501, 060102070502, and 060102070503 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.



Figure 4-51. Location of Ready Mix Concrete Plants in Subwatershed 0601020705. Subwatershed 060102070501, 060102070502, and 060102070503 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

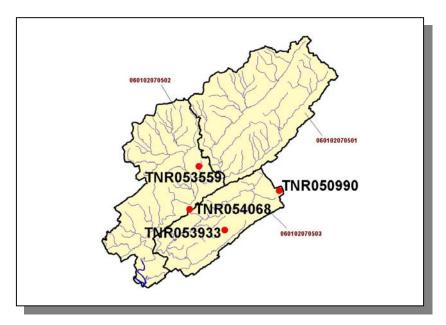


Figure 4-52. Location of TMSP Facilities in Subwatershed 0601020705. Subwatershed 060102070501, 060102070502, and 060102070503 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

4.2.D.ii.a. Dischargers to Water Bodies Listed on the 2002 303(d) List

There is one NPDES facility discharging to water bodies listed on the 2002 303(d) list in Subwatershed 0601020705:

TN0024155 (Oak Ridge STP) discharges to East Fork Poplar Creek
@ RM 8.3

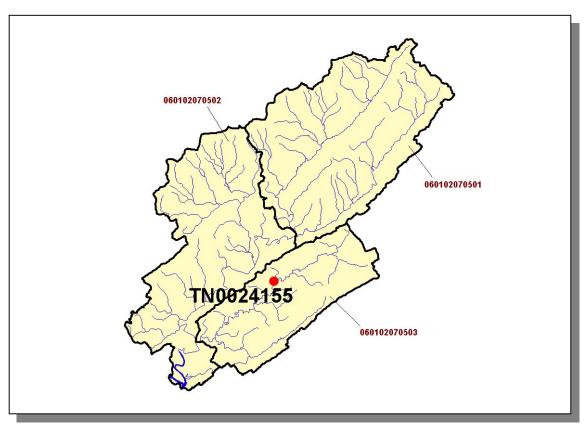


Figure 4-53. Location of NPDES Dischargers to Water Bodies Listed on the 2002 303(d) List in Subwatershed 0601020705. Subwatershed 060102070501, 060102070502, and 060102070503 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

PERMIT #	1Q10	3Q10	7Q10	3Q20	QDESIGN
TN0024155	14.4	15.8	16.5	15.1	5.87

Table 4-33. Receiving Stream Flow Information for NPDES Dischargers to Waterbodies Listed on the 2002 303(d) List in Subwatershed 0601020705. Data are in million gallons per day (MGD). Data were obtained from the USGS publication Flow Duration and Low Flows of Tennessee Streams Through 1992 or from permit files.

PERMIT#	WET	CBOD ₅	FECAL COLIFORM	NH ₃	E. COLI	TSS	SETTLEABLE SOLIDS	CN	DO	рН
TN0024155	X	Х	Χ	Χ	Х	Χ	Χ	Χ	Χ	Χ

Table 4-34. Parameters Monitored for Daily Maximum Limits for NPDES Dischargers to Waterbodies Listed on the 2002 303(d) List in Subwatershed 0601020705. WET, Whole Effluent Toxicity; CBOD₅, Carbonaceous Biochemical Oxygen Demand (5-Day); TSS, Total Suspended Solids.

4.2.D.iii. Nonpoint Source Contributions.

LIVESTOCK (COUNTS)								
Beef Cow	Milk Cow	Cattle	Chickens (Layers)	Chickens (Broilers Sold)	Hogs	Sheep		
1,954	142	3,924	10	74,854	24	47		

Table 4-35. Summary of Livestock Count Estimates in Subwatershed 0601020705. According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

	INVEN	ITORY	REMOVAL RATE		
	Forest Land	Timber Land	Growing Stock	Sawtimber	
County	(thousand acres)	(thousand acres)	(million cubic feet)	(million board feet)	
Anderson	124.0	124.0	2.6	6.2	
Morgan	287.8	276.2	3.5	10.9	
Roane	153.1	153.1	1.7	5.1	
Totals	564.9	553.3	7.8	22.2	

Table 4-36. Forest Acreage and Annual Removal Rates (1987-1994) in Subwatershed 0601020705.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	1.68
Legumes (Pastureland)	0.23
Legumes (Hayland)	1.07
Grass (Hayland)	0.75
Legumes, Grass (Hayland)	2.01
Grass, Forbs, Legumes (Mixed Pasture)	1.13
Forest Land (Not Grazed)	0.00
Forest Land (Grazed)	0.00
Corn (Row Crops)	7.18
Tobacco (Row Crops)	1.62
Other Vegetable and Truck Crops	12.06
Non-Agricultural Land Use	0.00
Other Land in Farms	0.23
Farmsteads and Ranch Headquarters	1.16

Table 4-37. Annual Estimated Soil Loss in Subwatershed 0601020705.